June 12, 2001

Mr. Steve Hunter
Roche Diagnostics Corporation
9115 Hague Road
Indianapolis, Indiana 46250

Re: 097-14320-00338
First Minor Permit Revision to
FESOP 097-11275-00338

Dear Mr. Hunter:

Roche Diagnostics Corporation was issued a FESOP on January 10, 2000 relating to the operation of standby and emergency generators under a Standard Industrial Classification Code (SIC) of 2835 In Vitro and In Vivo Diagnostic Substances. A letter requesting changes to this permit was received on April 17, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1(d)(4) a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The permit revision pertains to the addition of a fifth stand by generator, Emission Unit ID G5, with no changes to existing fuel use limitations. Listed below are the following changes with bold face reflecting additions and strikeout reflecting deletions.

1. Equipment descriptions in Section A.2 Emission Units and Pollution Control Equipment Summary have been amended to include Emission Unit ID G5 as follows.

   (e) One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G5. Emission Unit ID G5 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G5 exhausts at Stack/Vent ID G5. Installation date of 2001.

2. The additional Emission Unit ID G5 has been added to the Emission Unit Description box in Section D.1 FACILITY OPERATION CONDITIONS as follows:

Emission Unit ID G1 Standby Generator G1	Facility Description [326 IAC 2-8-4(10)]: One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G1. Emission Unit ID G1 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G1 exhausts at Stack/Vent ID G1. Installation date of 1993. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)
Emission Unit ID G2 Standby Generator G2	Facility Description [326 IAC 2-8-4(10)]: One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G2. Emission Unit ID G2 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G2 exhausts at Stack/Vent ID G2. Installation date of 1993. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Unit ID G3 Standby Generator G3	Facility Description [326 IAC 2-8-4(10)]: One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G3. Emission Unit ID G3 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G3 exhausts at Stack/Vent ID G3. Installation date of 1993. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)
Emission Unit ID G4 Standby Generator G4	Facility Description [326 IAC 2-8-4(10)]: One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G4. Emission Unit ID G4 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G4 exhausts at Stack/Vent ID G2. Installation date of 1993. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)
Emission Unit ID G5 Standby Generator G5	**Facility Description [326 IAC 2-8-4(10)]: One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G5. Emission Unit ID G5 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G5 exhausts at Stack/Vent ID G5. Installation date of 2001.** (**The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)**

3. Permit Conditions in Section D.1 FACILITY OPERATION CONDITIONS are amended as follows to reflect the addition of Emission Unit ID G5:

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 PSD Minor Limit [326 IAC 2-8-4(1)]][326 IAC 2-2][40 CFR 52.21]

Pursuant to 326 IAC 2-8-4(1) (FESOP: Permit Content):

(a) The combined total sum of diesel fuel input to Emission Unit ID G1, G2, G3, ~~and~~ G4 **and G5** shall not exceed 293,435 gallons per twelve (12) consecutive month period. This usage limit is equivalent to 95.5 tons NO_x emissions per twelve (12) consecutive month period.

(b) The fuel allotment in subpart a) of this condition shall be adjusted when combusting more than one (1) fuel by the following: Every one (1) thousand gallon reduction in diesel fuel consumption can be substituted for 0.08 million cubic feet of natural gas consumption provided natural gas consumption does not exceed 24.0 million cubic feet per rolling twelve (12) consecutive month period.

Compliance with a) and b) makes 326 IAC 2-7 (Part 70 Permit Program) not applicable and satisfies the requirement to limit NO_x and CO emissions to below the major source level such that 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 do not apply.

D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for Emission Unit ID G1, G2, G3 ~~and~~**,** G4 **and G5** .

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM and ERMD, compliance with the NO_x limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C.8 - Performance Testing.

D.1.4 Fuel Use Limitation

Compliance with the fuel usage limitation in Condition D.1.1 shall be demonstrated within thirty (30) days of the end of each month based on the combined total amount and type of fuel combusted in Emission Unit ID G1, G2, G3 ~~and~~**,**G4 **and G5** per rolling twelve (12) consecutive month period.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.5 Record Keeping Requirements

To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (a) and (b) below.

(a) To document compliance with condition D.1.1, the Permittee shall maintain records of the monthly amount of each type of fuel combusted in Emission Unit ID G1, G2, G3 ~~and~~ G4 **and G5.**

(b) All records shall be maintained in accordance with Section C.16 - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address(es) listed in Section C.17 - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

4. The addition of Emission Unit ID G5 requires the FESOP Quarterly Report Form on page 32 to be amended to include Emission Unit ID G5 as follows:

FESOP Quarterly Report

Source Name:	Roche Diagnostics Corporation
Source Address:	9115 Hague Road, Indianapolis, Indiana 46250
Mailing Address:	P.O. Box 50457, Indianapolis, Indiana 46250-50457
FESOP No.:	F097-11275-00338
Facility:	~~Four (4)~~ **Five (5)** Standby Generators: G1, G2, G3 ~~&~~ G4 **and G5**
Parameter:	Combined diesel fuel throughput and combined natural gas throughput.
Limit:	Less than 293,439 gallons per twelve (12) consecutive month period. Every 1000 gallon decrease in consumption can be substituted with 0.08 MMCF of natural gas consumption up to 24.0 MMCF per rolling twelve (12) consecutive month period.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Mr. Mark Caraher at (317) 327 -2272.

Sincerely,

Daniel B. Dovenbarger
Administrator, ERMD

Attachments: First Minor Permit Revision 097-14320-00338
Technical Support Document

MBC
cc: U.S. EPA, Region V
Mindy Hahn, IDEM OAQ
files

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

OFFICE OF AIR QUALITY
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION

Roche Diagnostics Corporation
9115 Hague Road
Indianapolis, Indiana 46250-0457

Roche Diagnostics Corporation (herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F097-11275-00338	
Issued by: Robert F. Holm, PhD, Administrator Environmental Resources Management Division	Issuance Date: January 10, 2000

First Administrative Amendment: F097-12717-00338	Pages Affected: 5a
Issued by: Mona A. Salem Chief Operating Officer Department of Public Works City of Indianapolis	Issuance Date: September 29, 2000

First Minor Permit Revision: F097-114320-00338	Pages Affected: 5, 5a, 27, 28 and 32
Issued by: Daniel B. Dovenbarger Administrator Environmental Resources Management Division	Issuance Date:

Emission Unit ID G4. Emission Unit ID G4 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G4 exhausts at Stack/Vent ID G2. Installation date of 1993.

(e) One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G5. Emission Unit ID G5 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G5 exhausts at Stack/Vent ID G5. Installation date of 2001.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Space heaters with fuel oil fired heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight;
  1) Six (6) portable space heaters identified as Emission Unit ID 6PSH. Each diesel fired portable space heater is rated at 100,000 Btu max heat input.

(b) Combustion source flame safety purging on startup.

(c) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(d) Cleaners and solvents characterized as follows:
  A) having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100°F) or;
  B) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20°C (68°F);

  the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(e) Closed loop heating and cooling systems.

(f) Paved and unpaved roads and parking lots with public access.

(g) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(h) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(i) Stationary fire pumps.

(j) Other emergency equipment as follows;

  Gasoline generators not exceeding 110 horsepower.
  1) One (1) gasoline fired portable generator identified as Emission Unit ID K1. Emission Unit ID K1 is a reciprocating internal combustion engine rated at 12.5 kilowatts.
  2) One (1) gasoline fired portable generator identified as Emission Unit ID K2. Emission Unit ID K2 is a reciprocating internal combustion engine rated at 5.0 kilowatts.

  Diesel generators not exceeding 1600 horsepower:
  1) One (1) diesel fired emergency generator identified as Emission Unit ID L-18. Emission Unit ID L-18 is a Caterpillar Model 3406 reciprocating internal combustion engine rated at 3.1 million Btu maximum heat input and 402 horsepower output. Emission Unit ID L-18 exhausts at Stack/Vent ID L-18. Installation date of September 1999.

  Natural gas reciprocating engines not exceeding 16,000 horsepower:
  1) One (1) natural gas fired emergency generator identified as Emission Unit ID A-P

Tunnel. Emission Unit ID A-P Tunnel is a reciprocating internal combustion engine rated at 15 kilowatts.

(k) Other activities or categories not previously identified: One (1) paint spray booth identified as Building L11 Paint Spray Booth with potential to emit Volatile Organic Compounds (VOC) equal to or less than three (3) lbs/hour and fifteen (15) lbs/day.

SECTION D.1 FACILITY OPERATION CONDITIONS

Emission Unit ID G1 Standby Generator G1	**Facility Description [326 IAC 2-8-4(10)]:** One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G1. Emission Unit ID G1 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G1 exhausts at Stack/Vent ID G1. Installation date of 1993. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)
Emission Unit ID G2 Standby Generator G2	**Facility Description [326 IAC 2-8-4(10)]:** One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G2. Emission Unit ID G2 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G2 exhausts at Stack/Vent ID G2. Installation date of 1993. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)
Emission Unit ID G3 Standby Generator G3	**Facility Description [326 IAC 2-8-4(10)]:** One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G3. Emission Unit ID G3 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G3 exhausts at Stack/Vent ID G3. Installation date of 1993. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)
Emission Unit ID G4 Standby Generator G4	**Facility Description [326 IAC 2-8-4(10)]:** One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G4. Emission Unit ID G4 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G4 exhausts at Stack/Vent ID G2. Installation date of 1993. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)
Emission Unit ID G5 Standby Generator G5	**Facility Description [326 IAC 2-8-4(10)]:** One (1) Kato reciprocating internal combustion engine model number 3516 identified as Emission Unit ID G5. Emission Unit ID G5 is a standby generator and burns diesel fuel at a maximum rated heat input of 18.16 million Btu per hour. Includes an alternative operating scenario of dual firing diesel fuel and natural gas firing up to a maximum natural gas heat input of 11.2 million Btu per hour. Emission Unit ID G5 exhausts at Stack/Vent ID G5. Installation date of 2001. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 PSD Minor Limit [326 IAC 2-8-4(1)]][326 IAC 2-2][40 CFR 52.21]

Pursuant to 326 IAC 2-8-4(1) (FESOP: Permit Content):

(a) The combined total sum of diesel fuel input to Emission Unit ID G1, G2, G3, G4 and G5 shall not exceed 293,435 gallons per twelve (12) consecutive month period. This usage limit is equivalent to 95.5 tons NO_x emissions per twelve (12) consecutive month period.

(b) The fuel allotment in subpart a) of this condition shall be adjusted when combusting more than one (1) fuel by the following: Every one (1) thousand gallon reduction in diesel fuel consumption can be substituted for 0.08 million cubic feet of natural gas consumption provided natural gas consumption does not exceed 24.0 million cubic feet per rolling twelve (12) consecutive month period.

Compliance with a) and b) makes 326 IAC 2-7 (Part 70 Permit Program) not applicable and satisfies the requirement to limit NO_x and CO emissions to below the major source level such that 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 do not apply.

D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for Emission Unit ID G1, G2, G3, G4 and G5.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM and ERMD, compliance with the NO_x limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C.8 - Performance Testing.

D.1.4 Fuel Use Limitation

Compliance with the fuel usage limitation in Condition D.1.1 shall be demonstrated within thirty (30) days of the end of each month based on the combined total amount and type of fuel combusted in Emission Unit ID G1, G2, G3, G4 and G5 per rolling twelve (12) consecutive month period.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.5 Record Keeping Requirements

To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (a) and (b) below.

(a) To document compliance with condition D.1.1, the Permittee shall maintain records of the monthly amount of each type of fuel combusted in Emission Unit ID G1, G2, G3, G4 and G5.

(b) All records shall be maintained in accordance with Section C.16 - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address(es) listed in Section C.17 - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION, COMPLIANCE DATA

FESOP Quarterly Report

Source Name: Roche Diagnostics Corporation
Source Address: 9115 Hague Road, Indianapolis, Indiana 46250
Mailing Address: P.O. Box 50457, Indianapolis, Indiana 46250-50457
FESOP No.: F097-11275-00338
Facility: Five (5) Standby Generators: G1, G2, G3, G4 and G5
Parameter: Combined diesel fuel throughput and combined natural gas throughput.
Limit: Less than 293,439 gallons per twelve (12) consecutive month period. Every 1000 gallon decrease in consumption can be substituted with 0.08 MMCF of natural gas consumption up to 24.0 MMCF per rolling twelve (12) consecutive month period.

QUARTER _____ YEAR: _____

Month	Fuel Type	Column 1	Column 2	Column 1 + Column 2
		This Month	Previous 11 Months	12 Month Total
Month	diesel (gal)			
	natural gas (MMCF)			
Month	diesel (gal)			
	natural gas (MMCF)			
Month	diesel (gal)			
	natural gas (MMCF)			

9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Indiana Department of Environmental Management
Office of Air Quality and
City of Indianapolis
Environmental Resources Management Division

Technical Support Document (TSD) for a Minor Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	**Roche Diagnostics Corporation**
Source Location:	**9115 Hague Road, Indianapolis, Indiana 46250**
County:	**Marion**
SIC Code:	**2835**
Operation Permit No.:	**F097-11275-00338**
Operation Permit Issuance Date:	**January 10, 2000**
Minor Permit Revision No.:	**097-14320-00338**
Permit Reviewer:	**M. Caraher**

The City of Indianapolis Environmental Resources Management Division (ERMD) and the Office of Air Quality (OAQ) have reviewed a revision application from Roche Diagnostics Corporation relating to the operation of standby and emergency generators under a Standard Industrial Classification Code (SIC) of 2835 In Vitro and In Vivo Diagnostic Substances.

History

On April 17, 2001, Roche Diagnostics submitted an application to ERMD requesting to add one (1) additional stand by generator to its existing FESOP. The additional generator is identical to the existing four (4) stand by generators at the permitted FESOP source and would fire the same fuel(s) as the existing generators. The source requested no increase or modification in the existing fuel use limitations that served to limit potential to emit Nitrogen Oxides (NO_x) to less than the major source threshold. Pursuant to 326 IAC 2-8-11.1(d)(4) (FESOP: Permit Revisions), this request should be processed as a Minor Permit Revision because the source is adding an emission unit of the same type that are already permitted, will comply with the same applicable requirements, permit terms and conditions as the existing emission units and will result in potential to emit that is less than the emission thresholds specifically identified in 326 IAC 2-8-11.1(d)(4).

Roche Diagnostics Corporation was issued its initial FESOP (F097-11275-00338) on January 10, 2000 and was issued a First Administrative Amendment (097-12717-00338) on September 29, 2000 to add one (1) paint spray booth identified as Building L11 Paint Spray Booth which was deemed an Insignificant Activity.

Existing Approvals

The source was issued a FESOP F097-11275-00338 on January 10, 2000. The source has since received the following:

(a) First Administrative Amendment No.: 097-12717-00338, issued on September 29, 2000.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
G5	Standby Generator	13.4	1.33	16038	1027

Recommendation

The staff recommends to the Administrator that this first Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application. An application for the purposes of this review was received on April 17, 2001.

Emission Calculations

See Appendix A Page 1 of 1 of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

The Table below reflects unlimited PTE of Emission Unit ID G5.

Pollutant	Potential To Emit (tons/year)
PM	5.5
PM-10	4.6
SO_2	32.1
VOC	6.5
CO	67.6
NO_x	377.9

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Benzene	0.1
Toluene	0.0
Xylene	0.0
Propylene	0.2
Formaldehyde	0.0
Total PAH	0.0
TOTAL	***0.3***

Justification for Modification

Pursuant to 326 IAC 2-8-11.1(d)(4) (FESOP: Permit Revisions), this request should be processed as a Minor Permit Revision because the source is adding an emission unit of the same type that are already permitted, will comply with the same applicable requirements, permit terms and conditions as the existing emission units and the addition will result in potential to emit that is less than the emission thresholds specifically identified in 326 IAC 2-8-11.1(d)(4).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2000 ERMD and OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM-10	0.01
SO_2	0.02
VOC	0.03
CO	0.22
NO_x	1.92
HAP (specify)	NR

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	< 100
PM10	< 100
SO_2	< 100
VOC	< 100
CO	< 100
NO_x	< 100
Single HAP	< 10
Combination HAPs	< 25

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.

(b) The source status is based upon the FESOP F097-11275-00338 issued January 10, 2000.

Potential to Emit of Revision after Issuance

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units. The source wide emission limits after revision (five generators) will stay the same as in the FESOP (four generators).

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs

Emission Unit ID G1, G2, G3, G4 Four (4) Standby Generators - **existing source**	1.4	1.2	8.1	3.1	20.8	95.5	
Emission Unit ID G1, G2, G3, G4 & G5 Five (5) Standby Generators - **after Revision**	1.4	1.2	8.1	3.1	20.8	95.5	
Emissions Increase	0.0	0.0	0.0	0.0	0.0	0.0	

This modification to an existing minor stationary source is not major because the emission increase is less than PSD significant levels and less than any major source threshold pursuant to 326 IAC 2-7. Therefore, pursuant to 326 IAC 2-2, 40 CFR 52.21 and 326 IAC 2-7 neither PSD nor major source rules under 326 IAC 2-7 apply.

County Attainment Status

The source is located in Marion County.

Pollutant	Status **(attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)**
PM-10	unclassifiable
SO_2	maintenance attainment
NO_2	attainment
Ozone	maintenance attainment
CO	attainment
Lead	unclassifiable

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as maintenance attainment or unclassifiable for ozone.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Malfunctions: Preventive Maintenance (PM) Plans) and 326 IAC 2-8-3 (FESOP: Permit Application)

The source is initially subject to 326 IAC 1-6-3 because it is required to obtain a permit under 326 IAC 2 (Permit Review Rules). However, 326 IAC 1-6-3 is superseded by 326 IAC 2-8-3 which requires the source to comply with the provisions of 326 IAC 1-6-3. Any person responsible for

operating any facility specified in 326 IAC 1-6 shall prepare and maintain a Preventive Maintenance Plan which includes the following information:

1) Identification of the individual(s) responsible for inspecting, maintaining and repairing emission control device(s).

2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.

3) Identification and quantification of the replacement parts which will be kept in inventory and made available for quick replacement.

PM Plans shall be submitted to IDEM, OAQ and/or ERMD upon request and shall be subject to review and approval by IDEM, OAQ and/or ERMD.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)

This source is not subject to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) because potential to emit has been enforceably limited to less than any major source threshold and the addition of the fifth generator results in no increase in the limited potential to emit.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

Because neither the existing source nor the addition of Emission Unit ID G5 results in the source being a major source of Hazardous Air Pollutants, 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) does not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_x in Marion County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-7 (Part 70 Permit Program)

This source installed four (4) diesel fired emergency generators in December 1993. No New Source Review determination was made and no application for new construction was received by ERMD. In addition, the operation of these four (4) units was not deemed to be in emergency situations solely at Roche Diagnostics Corporation. The operation of these four (4) units is on a standby basis to deliver emergency power to Indianapolis Power and Light Company and/or Roche Diagnostics Corporation and is not entirely dependent on power outages solely at Roche Diagnostics Corporation.

The operation of four (4) units at 8760 hours per year is in excess of 250 tons per year of NO_x emissions and CO emissions and at 500 hours per year, the combined potential to emit NO_x is in excess of 326 IAC 2-1 (General Provisions) minimum permitting thresholds .

As a result, the source has agreed to not pursue a Source Specific Operating Agreement because these units have been deemed to not be emergency units but standby units and wishes to obtain a permit under 326 IAC 2-7 (Part 70 Permit Program) to limit potential to emit below PSD and major source significance levels. The source is seeking to add a fifth generator, identified as Emission Unit ID G5, without increasing the limited potential to emit of the entire source.

326 IAC 2-8 (Federally Enforceable State Operating Permit Program)

This source, through the Part 70 Permit application process, has stated that actual emissions are less than major source thresholds and wishes to obtain a FESOP in order to limit potential to emit to less than major source significance levels for NO_x, SO_2 and CO.

326 IAC 5-1 (Opacity Regulations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6 (Particulate Rules)

The source is not major for PM and consists of standby and emergency reciprocating internal combustion engines combusting either diesel fuel, natural gas and/or gasoline. Therefore, no PM limit for these units is established pursuant to 326 IAC 6-1 (Nonattainment Area Limitations) or 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating). Pursuant to 326 IAC 1-2-59(Definitions),liquid and gaseous fuels and combustion air will not be considered as part of the process weight in determining applicability of 326 IAC 6-3 (Process Operations). Therefore, 326 IAC 6-3 (Process Operations) does not apply to liquid and gaseous fuel fired generators at this source.

326 IAC 7 (Sulfur Dioxide Rules)

Pursuant to 326 IAC 2-8 (Federally Enforceable State Operating Permit Program), potential to emit NO_x, SO_2 and CO are limited to less than major source significance levels. As a result, neither the source nor any individual standby or emergency generator has potential to emit sulfur dioxide in excess of twenty five (25) tons per year. Therefore, 326 IAC 7 (Sulfur Dioxide Rules) does not apply.

State Rule Applicability - Individual Facilities

Emission Unit ID G1, G2, G3, G4 and G5 - Five Standby Generators

326 IAC 2-8 (Federally Enforceable State Operating Permit Program)

This source installed four (4) diesel fired emergency generators in December 1993. No New Source Review determination was made and no application for new construction was received by ERMD. In addition, the operation of these four (4) units was not deemed to be in emergency situations solely at Roche Diagnostics Corporation. The operation of these four (4) units is on a standby basis to deliver emergency power to Indianapolis Power and Light Company and/or Roche Diagnostics Corporation and is not entirely dependent on power outages solely at Roche Diagnostics Corporation.

The operation of four (4) units at 8760 hours per year is in excess of 250 tons per year of NO_x emissions and at 500 hours per year, the individual Emission Unit and combined Emission Unit potential to emit NO_x is in excess of 326 IAC 2-1 (General Provisions) minimum permitting thresholds.

As a result, the source has agreed to not pursue a Source Specific Operating Agreement because these units have been deemed to not be emergency units but standby units and wishes to obtain a permit under 326 IAC 2-7 (Part 70 Permit Program) to limit potential to emit NO_x, SO_2 and CO to less than PSD and major source significance levels. The source has requested operation of each unit be limited to 500 annual operating hours pursuant to 326 IAC 2-8 (FESOP Program). At 500 annual operating hours for each unit, the sum of NO_x emissions is, approximately, 86.3 tons per year. Insignificant Activity NO_x emissions sum to, approximately, 3.5 tons per year. A FESOP source is allowed up to 99.0 tons of NO_x emissions per year. Instead of creating an emission cap at 86.3 + 3.5, potential to emit will be established at 99.0-3.5 for the significant units.

Pursuant to 326 IAC 2-8 (Federally Enforceable State Operating Permit Program) combined potential to emit NO_x is limited to 293,439 gallons of diesel fuel consumption per rolling twelve (12) consecutive month period. This is equivalent to 95.5 tons of NO_x emissions per rolling (12) consecutive month period (and operation of the four (4) units at greater than 500 annual operating hours for each unit).

As an alternative operating scenario, the source wishes to fire a combination of diesel fuel and natural gas with natural gas being fired up to 60% of the total heat input capacity for each unit on an hourly basis. In regards to potential to emit, dual firing natural gas at 60% of the hourly heat input results in higher VOC and CO emissions than the firing of diesel fuel only. However, the range of natural gas heat input can vary from greater than 0% but up to 60% of the heat input on an hourly basis. AP-42 emission factors for dual firing natural gas and diesel are estimated assuming natural gas heat input accounts for 95% of the total heat input on an hourly basis. For this reason, fuel equivalency limitations were not set utilizing the NO_x emission factor for straight diesel firing versus firing natural gas at 60% of the total hourly heat input. Fuel equivalency was derived assuming natural gas firing could account for up to 60% of the heat input of the total annual diesel fuel firing limitation (293,439) and, as a worst case, the NO_x emission factor for dual firing is equal to the (higher) NO_x emission factor when firing straight diesel fuel. For every 1000 gallon decrease in diesel fuel consumption, approximately, 0.08 million cubic feet of natural gas can be fired and still limit the source to less than major source threshold for NO_x emissions.

Therefore, 326 IAC 2-7 and PSD do not apply.

The source is seeking to add a fifth stand by generator, identified as Emission Unit ID G5, but does not seek an increase in the limited potential to emit of the source. The source has agreed to operate all 5 generators under the fuel use limitation established by F097-11275-00338 issued January 10, 2000. Therefore, 326 IAC 2-7 and PSD do not apply.

326 IAC 8-1-6 (New Facilities: General Reduction Requirements)

Emission Unit ID G1 through G5 were installed after 1980 but do not have potential emissions of Volatile Organic Compounds (VOC) of 25.0 tons per year or more.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

No compliance monitoring requirements are applicable to this source because each of the five (5) standby generators, the only significant emitting emission units at this source, are limited to 293,439 gallons of diesel fuel consumption per rolling twelve (12) consecutive month period, which, thereby limits the potential to emit NO_x (and CO) to less than 100 tons per rolling twelve (12) consecutive

month period and the potential to emit of all other criteria pollutant from each standby generator to less than 25 tons per rolling twelve (12) consecutive month period. In addition, no emission unit is equipped with any add on air pollution control devices(s).

Semiannual reporting , at a minimum, is required pursuant to 326 IAC 2-8-4(3)(C) (Permit Content). Because the source is being limited, such that PSD and 326 IAC 2-7 do not apply, the source will be required to submit reporting of fuel use for Emission Unit ID's G1 through G5 quarterly utilizing the FESOP Quarterly Report Form. The Compliance Monitoring Report Form will be submitted quarterly to coincide with the reporting of the required FESOP Quarterly Report Form.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

Conclusion

The operation of this first Minor Permit Revision shall be subject to the conditions of the attached proposed Minor Permit Revision No. 097-14320-00338.

APPENDIX A

One Standy By Generator
Emission Unit ID
G5

Appendix A: Emissions Calculations
Diesel Fuel Fired
Internal Combustion Engines - Industrial Reciprocating
> 600 hp

Company Name: **Roche Diagnostics Corporation**
Address City IN Zip: **9115 Hague Road, Indianapolis, IN 46250-0457**
CP:
Plt ID: **F097-11275-00338**
Reviewer: **M. Caraher**
Date: **06/06/2001**

Each Unit:

Max Output (hp)	Max Heat Input (MMBtu/hr)	Max Sulfur Content (% wt)	diesel fuel Btu/gal	Potential Thru (gal/yr)
2615	18.16	0.4	137,000	1,161,179.6

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu (AP-42)	**0.07**	**0.06**	**1.01(S)**	3.20	**0.08**	**0.85**
Emission Factor in lb/MMBtu (manufacturer)	---	0.0308	**1.01(S)**	**4.7511**	**0.08**	0.5358
Potential Emissions in lbs/hr	1.3	1.0	7.3	86.3	1.5	15.4
Potential Emissions in tons/yr	5.5	4.6	32.1	377.9	6.5	67.6
Potential Emissions @ 500 hrs/yr	0.3	0.3	1.8	21.6	0.4	3.9

emfac used is in bold

Methodology

Emission Factors used are the highest emission rate from either AP-42 Fifth Edition Tables 3.4-1 and 3.4-2 or manufacturer's estimate
Sulfur Content & Btu from AP-42 Appendix A
Potential thru (gal/yr) = MMBtu/hr x gal/0.137 MMBtu x 8760 hr/yr

HAPs

	Benzene	Toluene	Xylene	Propylene	Formaldehyde	Total PAH
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	2.79E-03	7.89E-05	2.21E-04
Potential Emissions in lbs/hr	0.0	0.0	0.0	0.1	0.0	0.0
Potential Emissions in tons/yr	0.1	0.0	0.0	0.2	0.0	0.0
Potential Emissions @ 500 hrs/yr	0.0	0.0	0.0	0.0	0.0	0.0

Methodology

Emission Factors from AP-42 Fifth Edition Table 3.4-3

Limited total diesel fuel consumption: to limit Significant + Insignificant < major source
99.0 tons NOx - 3.5 tons NOx from Insignificant Activities = 95.5 tons NOx from Significant emission units
What combined total diesel fuel use limitation will limit NOx < 95.5 tons/yr?
x gal/yr x 137000 Btu/gal x MMBtu/10^6 Btu x 4.7511 #NOx/MMBtu x ton/2000 lbs = 95.5 tons NOx/ 293,439 gallons/yr